Nuclear Engineering and Design 139 (1993) 343–345
North-Holland

Contents of Volume 139

CONTENTS OF ISSUE 139(1)

Publisher's Note ix

Topical Issue in honor of Dr. Salomon Levy
Edited by Dr. R.T. Lahey, Jr.

Preface, *R.T. Lahey, Jr.* xi

Nuclear safety code modelling of condensation in stratified flow, *Q. Zhang, G.F. Hewitt and D.C. Leslie* 1
Thermofluid-neutronic stability of the rotating, fluidized bed, space power reactor, *C.C. Lee, O.C. Jones and M. Becker* 17
External cooling of a reactor vessel under severe accident conditions, *R.E. Henry and H.K. Fauske* 31
A characteristic analysis of void waves using two-fluid models, *T.C. Haley, R.T. Lahey, Jr. and D.A. Drew* 45
Passive decay heat removal in advanced LWR concepts, *P. Hejzlar, N.E. Todreas and M. Driscoll* 59
Thermal stratification and reactor piping integrity, *J.H. Kim, R.M. Roidt and A.F. Deardorff* 83
Experimental assessment of liquid–wall contacts in post-CHF convective boiling, *A.F. Cokmez-Tuzla, K. Tuzla and J.C. Chen* 97
Some models for the prediction of fluid elastic instability, *I. Catton and J. Marn* 105
Boiling water reactor fuel heatup during a loss of coolant while refueling, *B. Chexal, S. Pal Kalra, J.S. Horowitz and J.M. Healzer* 121
A gas dynamic choking phenomenon in early time intense transient condensation, *V.E. Schrock, P.F. Peterson and R.Y. Bai* 127
The USNRC thermal-hydraulic research program, *L.M. Shotkin and D. Bessette* 141
Prediction of the onset of flow instability in transient subcooled flow boiling, *S.C. Lee and S.G. Bankoff* 149

Instructions to contributors 161

CONTENTS OF ISSUE 139(2)

Engineering Mechanics, Structures and Materials

Innovative design of viscoelastic dampers for seismic mitigation, *C.S. Tsai* 165

New techniques for nondestructive testing of piping systems in nuclear power plants, *A. Ettemeyer* 183

Thermal-Hydraulics and Related Safety

Scaling of the accuracy of the Relap5/mod2 code, *R. Bovalini and F. D'Auria* 187

Development of a bundle correction method and its application to predicting CHF in rod bundles, *D.-H. Hwang, W.-P. Baek and S.H. Chang* 205

Neutronic and thermal hydraulic design of the graphite moderated helium-cooled high flux reactor, *P.H. Liem and H. Sekimoto* 221

The numerical analysis of boiling flow instability in parallel heated channels, *B.I. Nigmatulin, O.I. Melikhov, V.N. Blinkov and P.G. Gakal* 235

The IAEA Accident Management Programme, *L. Kabanov, M. Jankowski and H. Mauersberger* 245

Book Review

Nuclear Engineering – An Introduction, by K. Almenas and R. Lee, *W. Wünsch* 253

Information on new IAEA publications 255

Instructions to contributors 257

CONTENTS OF ISSUE 139(3)

Extended and Updated Selected Papers presented within Division L at the SMiRT-11 Conference on INELASTIC BEHAVIOR OF SOLIDS AND STRUCTURES Tokyo, Japan, August 18–23, 1991

Preface, Y. Asada i

Proposal of a new estimation method for the thermal ratchetting of a cylinder subjected to a moving temperature distribution, *H. Wada, H. Kaguchi, M. Ueta, M. Ichimiya, K. Kimura, Y. Fukuda and M. Suzuki* 261

Exploratory research on creep and fatigue properties of 9Cr-steels for the steam generator of an FBR, *Y. Asada, K. Dozaki, M. Ueta, M. Ichimiya, K. Mori, K. Taguchi, M. Kitagawa, T. Nishida, T. Sakon and M. Sukekawa* 269

Dispersion hardening effects of Nb–V precipitates in Mod. 9Cr–1Mo steels, *K. Hamada, K. Tokuno and T. Takeda* 277

Creep–fatigue crack propagation tests and the development of an analytical evaluation method for surface cracked pipe, *T. Shimakawa, H. Takahashi, H. Doi, K. Watashi and Y. Asada* 283

Creep-fatigue crack propagation behavior in a surface cracked plate, *I. Nonaka, M. Kitagawa, H. Kaneko, T. Sato, M. Yamashita, K. Watashi and Y. Asada* 293

Effect of nonproportional loading on creep-fatigue properties of 304 stainless steel at low strain ranges near the elastic region, *T. Asayama, K. Aoto and Y. Wada* 299
Life assessment of high-temperature components of thermal power plants in Japan, *T. Sakurai, S. Sugai and M. Aoki* 311
A two-surface cyclic plasticity model consistent with fundamental stress–strain equations of the power-law type, *K. Iwata* 319
Determination of internal state variables and constitutive modeling for Type 316 stainless steel, *K. Taguchi and T. Uno* 327
Extensive modeling of high temperature deformation for cyclically softening material, *T. Nakamura and Y. Asada* 333

Announcement: SMiRT-12 Conference 341

Contents of volume 139 343

Author index 347

Subject index 349

Instructions to contributors 351